

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2026

M.Tech-II Semester (CM)

COURSE CODE (CREDITS): 10M11CE211 (3)

MAX. MARKS: 25

COURSE NAME: CONSTRUCTION CONTRACTS AND LAWS

COURSE INSTRUCTORS: DR. SAURAV

MAX. TIME: 1 Hour 30 Min

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of Non programmable calculator is allowed.

Q.No	Questions	CO	Marks															
Q1	A contractor is executing a metro rail project in a densely populated urban area. During construction, excessive dust and noise affect nearby residents, and falling debris damages a shop adjacent to the site. The affected parties file a legal claim against the contractor, although they have no direct contractual relationship with him. (a) Explain how the contractor can be held liable under the law of torts despite absence of a contract. (b) Distinguish between negligence and nuisance in this context, with suitable arguments. (c) What preventive measures should engineers adopt at the planning and execution stage to minimize such liabilities?	3	5															
Q2	A government agency plans to award a ₹600 crore metro infrastructure project. The estimated cost prepared by the department is ₹580 crore. After technical evaluation, two bidders are shortlisted: Bidder Details: <table><tr><th>Parameter</th><th>Bidder L1</th><th>Bidder L2</th></tr><tr><td>Bid Amount</td><td>₹500 crore</td><td>₹565 crore</td></tr><tr><td>Past Performance</td><td>Moderate (delay history)</td><td>Excellent</td></tr><tr><td>Technical Score (out of 100)</td><td>65</td><td>90</td></tr><tr><td>Probability of timely completion</td><td>55%</td><td>85%</td></tr></table> If the project is delayed or fails, the government estimates an additional financial burden	Parameter	Bidder L1	Bidder L2	Bid Amount	₹500 crore	₹565 crore	Past Performance	Moderate (delay history)	Excellent	Technical Score (out of 100)	65	90	Probability of timely completion	55%	85%	3	5
Parameter	Bidder L1	Bidder L2																
Bid Amount	₹500 crore	₹565 crore																
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Technical Score (out of 100)	65	90																
Probability of timely completion	55%	85%																

	of ₹150 crore due to cost escalation, penalties, and public inconvenience. (a) Compute the expected total project cost for both bidders considering the probability of successful completion. (b) Based on expected cost and technical capability, recommend the most suitable bidder with proper justification. (c) Determine whether Bidder L1's bid qualifies as an abnormally low bid if the threshold for such classification is 12% below the estimated cost. (d) Discuss how prequalification criteria and technical scoring influence the final decision in such infrastructure projects. (e) From a legal and audit perspective, explain what documentation and evaluation records must be maintained to justify the final award decision.		
Q3.	A contractor has a ₹20 crore claim. The dispute resolution options are: Litigation: Time = 5 years, Success probability = 50%, Cost = ₹50 lakh Arbitration: Time = 2 years, Success probability = 70%, Cost = ₹25 lakh Discount rate = 8% per year (a) Compute the Present Value (PV) of expected recovery under litigation. (b) Compute the PV of expected recovery under arbitration. (c) Compute the expected net benefit (Expected PV – PV of cost) for both options. (d) Recommend the best option with justification.	1	5
Q4.	A contractor enters into a contract with a government agency to construct a bridge. Due to poor construction quality, a third-party user suffers injury and files a case against the contractor. (a) Explain whether the third party can claim damages under contract law. (b) How does the concept of privity of contract apply in this case? (c) Suggest legal remedies available to the affected party.	2	5
Q5.	A contractor fails to complete a project within the agreed time, causing financial loss to the employer. (a) Define breach of contract and classify its types. (b) Explain how damages are assessed in such cases. (c) Under what circumstances can specific performance be granted instead of damages?	2	5